

# PATENT COOPERATION TREATY

## PCT


### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 10 JAN 2005

WIPO

PCT

Applicant's or agent's file reference BCS 03-4001		<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/EP2004/001786		International filing date (day/month/year) 28.01.2004	Priority date (day/month/year) 03.02.2003	
International Patent Classification (IPC) or national classification and IPC C07D311/54				
Applicant BAYER CROPSCIENCE S.A. et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains Indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input checked="" type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 02.09.2004		Date of completion of this report 07.01.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Seelmann, I  Telephone No. +49 89 2399-7480		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/001786

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
    - ☐ international search (under Rules 12.3 and 23.1(b))
    - ☐ publication of the international application (under Rule 12.4)
    - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

**Description, Pages**

1-12 as originally filed

**Claims, Numbers**

1-26 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):
  4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
    - ☐ the description, pages
    - ☐ the claims, Nos.
    - ☐ the drawings, sheets/figs
    - ☐ the sequence listing (*specify*):
    - ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/EP2004/001786

---

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

1. Statement

Novelty (N)	Yes: Claims	1-17,19,20,23,26
	No: Claims	18,21,22,24,25
Inventive step (IS)	Yes: Claims	1-17,21-26
	No: Claims	18-20
Industrial applicability (IA)	Yes: Claims	1-26
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

---

**Box No. VI Certain documents cited**

---

1. Certain published documents (Rule 70.10)

and / or

2. Non-written disclosures (Rule 70.9)

**see separate sheet**

**Re Item V.**

1. The following documents are referred to in this communication:

D1 : US 6 034 121 A  
D2 : PATENT ABSTRACTS OF JAPAN, vol. 012, no. 096, 29 March 1988;  
JP 62 228001 A  
D3 : DATABASE CROSSFIRE BEILSTEIN [Online] Beilstein Institut zur  
Förderung der Chemischen Wissenschaften, Frankfurt am Main, DE;  
XP002236953, Database accession no. 578115  
D4 : J. ORG. CHEM., vol. 63, 1998, pages 8640-8641  
D5 : J. ORG. CHEM., vol. 48, 1983, pages 1051-1055  
D6 : J. ORG. CHEM., vol. 21, 1956, pages 516-519

**2. NOVELTY**

The subject-matter of some claims cannot be considered as new (Article 33(2) PCT). The subject-matter of claim 24 and 25 is anticipated by D1 (Example 122, 195 and claim 1). Furthermore, the subject-matter of claim 18 is anticipated by D2 (scheme page 5, R1= CN). The subject-matter of claim 21 and 22 is also anticipated by D2 (compounds of formula (I), Example 23).

**3. INVENTIVE STEP**

The subject-matter of claims 18-20 does not fulfil the requirements of Article 33(3) PCT.

The closest state of the art for claim 18 is represented by D2 and D3. The closest state of the art for claim 19 is represented by D4. The closest state of the art for claim 20 is represented by D5 and D6. The problem resides in the provision of alternative processes for the preparation of compounds of formula III (claim 18), II (claim 19 and I (claim 20). The environment of the active center of the molecules in the prior art and the present application are the same. Thus, the argumentation as given in the description (passage bridging page 1 and 2) is not valid in view of D4. The transformation of claim 20 can be seen as general knowledge of the man skilled in the art. The problem underlying the present application must, therefore, be seen in the provision of a processes having unexpected effects, because the proposed solution would be seen as an obvious alternative. In the absence of comparative test results or

**INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(SEPARATE SHEET)**

International application No.

PCT/EP2004/001786

other appropriate information it is not possible to decide whether such a problem has been solved or not.

The subject-matter of the other claims can be considered as involving an inventive step (Article 33(3) PCT). The claimed synthesis sequence of claim 1 has not been described or suggested in any of the cited documents.